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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/662,741	09/14/2000	Herman Bustamante	12755-052700US	1967

20350 7590 07/16/2002

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EXAMINER

TO, DORIS HA

ART UNIT PAPER NUMBER

2682

DATE MAILED: 07/16/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/662,741

Applicant(s)

BUSTAMANTE ET AL.

Examiner

Doris To

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 April 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-25 is/are allowed.
- 6) ☒ Claim(s) 26-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Reissue Applications

1. This application is objected to under 37 CFR 1.172(a) as lacking the written consent of all assignees owning an undivided interest in the patent. The consent of the assignee must be in compliance with 37 CFR 1.172. See MPEP § 1410.01.

A proper assent of the assignee in compliance with 37 CFR 1.172 and 3.73 is required in reply to this Office action.

2. This application is objected to under 37 CFR 1.172(a) as the assignee has not established its ownership interest in the patent for which reissue is being requested. An assignee must establish its ownership interest in order to support the consent to a reissue application required by 37 CFR 1.172(a). The assignee's ownership interest is established by:

(a) filing in the reissue application evidence of a chain of title from the original owner to the assignee, or

(b) specifying in the record of the reissue application where such evidence is recorded in the Office (e.g., reel and frame number, etc.).

The submission with respect to (a) and (b) to establish ownership must be signed by a party authorized to act on behalf of the assignee. See MPEP § 1410.01.

An appropriate paper satisfying the requirements of 37 CFR 3.73 must be submitted in reply to this Office action.

3. The original patent, or a statement as to loss or inaccessibility of the original patent, must be received before this reissue application can be allowed. See 37 CFR 1.178.

Claim Rejections - 35 USC § 103

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4. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5. Claims 26-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Graziano [US 4,128,740].

Regarding claim 26, Graziano discloses a cellular communication signal configuration arrangement for use in a cellular communication system comprising a plurality of cells (1-4 of Figs. 5 and 8), each of the plurality of cells comprising a plurality of sectors (see Fig. 8), a base station (see Fig. 3) associated with each of the plurality of cells, a plurality of sector beam antennas (see Fig. 2) associated with the base station (see Fig. 3), a plurality of subscriber stations (see Fig. 1) in a given cell of the plurality of cells in each of the plurality of sectors, the plurality of subscriber stations communicating with a local base station associated with the given cell (see Fig. 1) with each of the plurality of subscriber stations communicating with the local base station through a given sector beam antenna of the plurality of sector beam antennas (see Figs. 1-8) the communication signal configuration arrangement comprising: assigning one set of communication signal configuration (W6) to the plurality of subscriber stations differing from another set of communication signal configurations assigned to another plurality of subscriber stations in an immediately adjacent cell to the given cell (Z1), the another plurality of subscriber stations occupying another sector in a same relative location in an immediately adjacent cell to that of the given sector, wherein the one set of communication signal configurations enables each subscriber station of the plurality of subscriber stations to transmit communication signals to the given base station without substantially interfering with any other communication signals received by another base station in the immediately adjacent cell (see Summary of the

Invention), see Figs. 1-8. Graziano does not specifically show the claimed the subscriber station having narrow transmission beam width antenna. The examiner takes Official Notice that such feature is well known in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the subscriber stations of Graziano with narrow transmission beam width antenna in order to further reduce interference.

Regarding claim 27, Graziano shows the claimed each of the plurality of cells is hexagonal in shape (see Fig. 8) and communication signal configuration arrangement provides at least six sectors (see Fig. 8) for each of the plurality of cells, see Fig. 8.

Regarding claim 28, although Graziano does not specifically show the claimed one set of communication configurations utilizes different communication signal polarities from any other communication signals received by another base station from another sector in the same relative location in the immediate adjacent cell, such feature would obviously minimize interference. Since it would be desirable to minimize interference, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify such feature discussed above to Graziano in order to improve in overall communication quality.

Regarding claim 29, Graziano shows the claimed one set of communication configurations utilizes different communication signal transmission frequencies from any other communication signals received by the another base station from another sector in the same relative location in the immediately adjacent cell (see for example Z6 and W6 in Fig. 8).

Regarding claim 30, Graziano does not show rectangular cells and at least eight sectors in each cell. One of ordinary skill in the art would have readily appreciated that if the particular area needs to have more coverage and usage, it would have been obvious to one of ordinary skill

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in the art to modify Graziano with rectangular cells and at least eight sectors in each cell in order to increase the frequency reuse and provide more coverage.

Regarding claims 31 and 32, the claims are interpreted and rejected for the same reasons as set forth in the rejection of claims 28-29 above

Response to Arguments

6. Applicant's arguments filed 4/23/02 have been fully considered but they are not persuasive.

Applicants argued that the invention is directed towards minimizing transmission interference by transmission received at a base station, while Graziano is used to minimize adjacent channel interference.

In response to applicants' arguments against Graziano reference individually, one cannot show nonobviousness by attacking Graziano reference individually where the rejections are based on 35 USC 103.

Claims 1-25 are allowable over the prior art.

Conclusion

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

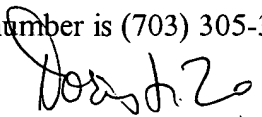
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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doris To whose telephone number is (703) 305-4827. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (703) 308-6739. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.


Doris To 7/12/02
Primary Examiner
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